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The 2000 Iowa Corn Yield Test Report, District 3

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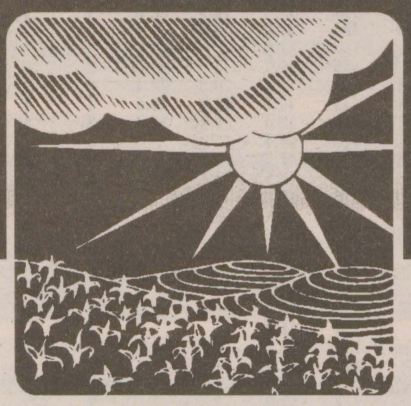
Abstract

Results of the Iowa Crop Performance Test-Com are published to aid Iowa farmers in selecting com hybrids. This is the 81st consecutive year for the test. These data are first released on the Iowa Crop Improvement Association's homepage at http://www.agron.iastate.edu/icia/ usually around the end of November. For additional information about electronic distribution, contact Extension Software Service, 110 EES Bldg., Haber Rd., Iowa State University, Ames, Iowa 50011-3070, telephone number (515) 294-8658.

Disciplines

Agriculture



A supplement to the December 16, 2000 issue of *Iowa Farmer Today*

2000 Iowa Crop Performance Test—Corn District 3

Results of the Iowa Crop Performance Test—Corn are published to aid Iowa farmers in selecting corn hybrids. This is the 81st consecutive year for the test.

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The next released format of these data is on computer diskettes, which include a hybrid selection computer program described in another section of this report. These diskettes are usually available a week to 10 days after the data are released on the World Wide Web.

The final format is the printed version, which is printed and distributed by *Iowa Farmer Today* in its Dec. 16, 2000 issue. A few days later, the printed reports also are available from county extension offices.

The presentation of data for the hybrids tested does not imply approval or endorsement by the authors or the agencies sponsoring or conducting the test. Entries in Tables 1 and 2 are designated by brand name and variety.

Use of These Data in Advertisements

Iowa State University and the Iowa Crop Improvement Association desire to maintain the credibility of data from the Iowa Crop Performance Test—Corn. Misuse of these data in advertisements can have a negative effect on the perception of the value of these data. For advertising purposes, brand-to-brand comparisons should not be made unless more than one competitor brand is used in the ad and all entries of competitor brands in a reported table are included in the ad. Advertisement statements by an individual company about the performance of its entries can be made as long as they are accurate statements about the data as published with no reference to other companies' hybrids. A statement similar to: "See the official *Iowa Crop Performance Test—Corn* report, PM 660 (1-7) 00, for details," should be included in the ad.

2000 Procedure

Producers of seed corn and Iowa State University were eligible to enter hybrids in the Iowa Crop Performance Test—Corn. Each producer was allowed a maximum of nine paid entries per district. All commercial entries had to be available in a quantity of at least 10 bushels of seed.

In 2000, data are reported on 227 entries in this district. Fourteen of the entries determined to be check hybrids were entered by the Iowa Crop Improvement Association. In June, survey cards were mailed to a random sample of corn growers in Iowa. Based on the survey results, the 14 hybrids grown on the most acres in a district were classified as check hybrids for that district. The check hybrids ($ and !) in this report were determined by the 1999 survey. The Iowa Crop Improvement Association entered a maximum of three check hybrids of any given brand. These entries were given priority over the remaining 213 entries made by seed producers.

Each entry was replicated four times in four-row plots at a planting rate of 29,000 kernels per acre at each location. All locations were machine planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in yield data. A moisture determination was made from each plot and yields were corrected to 15.5 percent moisture for shelled corn.

Since 1988, data for protein, oil, and starch percentages have been included in the *Iowa Crop Performance Test—Corn* reports. Protein, oil, and starch were measured on an Infratec 1225 near-infrared transmittance analyzer calibrated against accepted chemical methods as done by Woodson-Tenant Labs, Des Moines, Iowa. Charles R. Hurburgh, Jr. of the ISU Department of Agricultural and Biosystems Engineering was responsible for analyzing the samples. Samples for nutrient analysis were collected from one field in each district. Data presented are averages of the four replicated plots in that field. To be consistent with the yield data, the protein, oil, and starch data were corrected to 15.5 percent moisture.

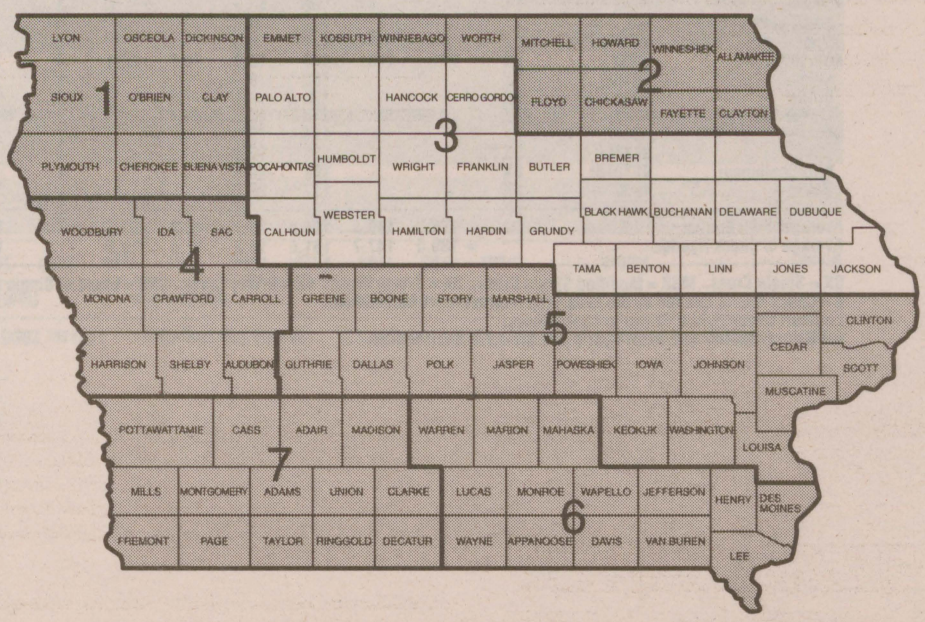
How Information Is Presented

The agronomic data presented are averages of two locations in 1998 and three locations in 1999 and 2000. Yield in bushels per acre and percentages of moisture, root lodging, stalk lodging, dropped ears, stand, protein, oil, and starch are shown for all entries in 2000 and for those tested in 1998 and 1999 that were in the 2000 test.

Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values for yield shown in Tables 1 and 2 represent, in bushels per acre, the amount of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Grain moistures shown in Tables 1 and 2 are indications of maturity and natural drying rate. Maturity of varieties entered generally ranged from short to full season. Yield comparisons should be made among varieties of similar maturity.



IOWA CROP IMPROVEMENT ASSOCIATION ICIA AMES, IOWA

Iowa Crop Improvement Association

IOWA STATE UNIVERSITY
University Extension

PM 660 3 00 December 2000

Table 2. Averages of 1999-00 and 1998-00 of Varieties Tested in District 3.
LSD for Yields Are 5 Bushels for 98-00 and 6 Bushels for 99-00.

98-00 Protein LSD = 0.2. 98-00 Oil LSD = 0.1. 98-00 Starch LSD = 0.2.
99-00 Protein LSD = 0.2. 99-00 Oil LSD = 0.1. 99-00 Starch LSD = 0.3.

			Yield Bu/A		Moisture Pct		Root Ldg Pct		Stalk Ldg Pct		Drop Ear Pct		Stand Pct		Protein Pct		Oil Pct		Starch Pct			
Brand	Variety	Cross	98-00	99-00	99-00	98-00	98-00	99-00	98-00	99-00	98-00	99-00	98-00	99-00	98-00	99-00	98-00	99-00	98-00	99-00	Variety	Brand
U.S. Seeds	USC1009	SX		144	13.3			0		5		0		87		8.0		3.6		60.6	USC1009	U.S. Seeds
Middlekoop	M902	SX		149	13.8			3		5		0		90		7.9		3.8		60.9	M902	Middlekoop
Rainbow	3020	SX		145	14.7			7		4		0		91		7.8		3.8		60.8	3020	Rainbow
Epley	EX1510Bt	SX		150	14.8			1		8		0		92		7.8		3.9		61.1	EX1510Bt	Epley
U.S. Seeds	USC1029Bt	SX		148	15.0			1		10		0		92		7.6		3.9		61.0	USC1029Bt	U.S. Seeds
DEKALB	DK537	SX	165	163	15.5	16.5	8	0	2	2	0	0	92	93	7.4	7.5	3.5	3.5	61.6	61.5	DK537	DEKALB
Hobart	4020	SX		153	15.6			2		7		0		89		7.7		3.6		61.1	4020	Hobart
$DEKALB	DK545BtY	SX		154	15.7			1		8		0		93		7.6		3.7		61.1	DK545BtY	$DEKALB
Epley	EX2422	SX		159	15.8			1		5		0		94		7.8		3.5		61.0	EX2422	Epley
!Golden Harvest	H2390	SX	155	163	15.8	16.9	1	0	2	2	0	0	89	90	8.1	8.3	3.5	3.5	60.9	60.9	H2390	!Golden Harvest
Hobart	4010	SX		158	15.9			0		4		0		91		7.8		3.6		61.1	4010	Hobart
Uthoff	U81	SX		159	16.0			1		5		0		91		7.4		4.0		61.3	U81	Uthoff
Middlekoop	M905Bt	SX		156	16.3			1		1		0		92		7.5		3.7		61.4	M905Bt	Middlekoop
DEKALB	DK567	SX		159	16.4			0		8		0		91		7.7		3.6		61.3	DK567	DEKALB
$DEKALB	DK580BtY	SX		156	16.5			0		5		0		92		7.9		3.8		60.8	DK580BtY	$DEKALB
Hill Seed	EX104	SX		158	16.5			1		6		0		92		7.9		3.7		60.9	EX104	Hill Seed
Golden Harvest	H8067Bt	SX		165	16.6			0		1		0		94		8.0		3.7		60.7	H8067Bt	Golden Harvest
Hill Seed	EX105	SX		158	16.8			1		4		0		91		7.7		3.6		60.9	EX105	Hill Seed
!Garst	8692IT	SX		146	16.9			1		3		0		90		8.3		3.7		60.8	8692IT	!Garst
Hobart	4840	SX	157	156	17.0	18.4	5	0	3	4	0	0	89	90	7.3	7.2	3.5	3.6	61.6	61.5	4840	Hobart
Mycogen	2657	SX		167	17.1			2		2		0		88		7.4		4.0		60.9	2657	Mycogen
Cornelius	C507	SX	169	166	17.3	18.0	14	2	4	6	0	0	91	91	7.7	7.9	3.6	3.7	61.1	60.8	C507	Cornelius
Rainbow	3122	SX		160	17.4			2		6		0		91		7.6		3.7		61.1	3122	Rainbow
Mycogen	2652	SX		167	17.4			1		6		0		93		7.9		3.8		60.6	2652	Mycogen
Ottilie	4911	SX		167	17.5			3		6		0		94		7.6		3.6		61.3	4911	Ottilie
U.S. Seeds	USC1069Bt	SX		160	17.6			3		6		0		92		7.5		3.7		61.3	USC1069Bt	U.S. Seeds
DEKALB	DK589BtY	SX		158	17.7			1		3		0		90		7.5		3.7		61.0	DK589BtY	DEKALB
FS	5308	SX	163	164	17.8	18.7	13	1	4	5	0	0	90	91	7.3	7.4	3.7	3.8	61.4	61.3	5308	FS
#KSC/Challenger	9911A	SX	170	166	17.8	19.3	13	3	3	4	0	0	90	90	7.5	7.5	3.5	3.5	61.1	61.4	9911A	#KSC/Challenger
KSC/Challenger	9010Bt	SX		167	17.8			1		3		0		89		7.5		3.8		61.2	9010Bt	KSC/Challenger
Hill Seed	HSX1099	SX		161	17.9			1		6		0		90		8.0		3.8		60.6	HSX1099	Hill Seed
Wilson	1580	SX		162	17.9			1		3		0		91		7.8		4.0		60.8	1580	Wilson
Dairyland	ST1507	SX		161	17.9			2		6		0		91		7.7		3.7		61.2	ST1507	Dairyland
Prairie Gold	PG1632	SX	163	162	17.9	19.2	8	2	3	5	0	0	90	92	7.5	7.7	3.5	3.6	61.2	61.2	PG1632	Prairie Gold
Hill Seed	EX111	SX		156	17.9			3		5		0		90		7.5		3.8		61.1	EX111	Hill Seed
Kruger	9513	SX	169	162	18.0	19.1	13	2	4	5	0	0	91	91	7.2	7.5	3.5	3.6	61.5	61.4	9513	Kruger
Asgrow	RX601YG	SX		172	18.0			0		4		0		90		7.2		3.7		61.5	RX601YG	Asgrow
Hawkeye Hybrid	SX33	SX		163	18.0			1		6		0		91		7.9		3.8		60.9	SX33	Hawkeye Hybrid
Renze	6320	SX		158	18.0			1		8		0		92		7.9		3.6		61.1	6320	Renze
#Kruger	9810	SX	171	166	18.0	19.3	6	0	4	5	0	0	88	89	7.8	8.1	3.2	3.3	61.5	61.5	9810	#Kruger
U.S. Seeds	USC1099	SX		165	18.1			1		6		0		92		7.8		3.7		60.8	USC1099	U.S. Seeds
Desoy	9614A	SX	171	171	18.1	19.6	14	2	2	2	0	0	90	91	7.1	7.3	3.5	3.6	61.7	61.4	9614A	Desoy
FS	6576	SX	171	165	18.1	19.1	13	1	3	4	0	0	91	93	7.3	7.5	3.5	3.6	61.5	61.2	6576	FS
Prairie Gold	PG1586	SX	154	154	18.2	19.0	17	1	3	4	0	0	89	90	7.8	7.8	3.5	3.6	61.0	61.1	PG1586	Prairie Gold
Rainbow	3100	SX	169	167	18.2	19.4	11	1	2	3	0	0	91	92	7.0	7.2	3.6	3.6	61.7	61.6	3100	Rainbow
NetSeeds	NET1105	SX		160	18.2			3		5		0		92		7.3		3.6		61.5	NET1105	NetSeeds
Great Lakes	5816	SX	167	163	18.2	19.1	14	2	4	4	0	0	91	92	7.3	7.4	3.5	3.5	61.6	61.6	5816	Great Lakes
#Middlekoop	M711	SX	166	162	18.3	19.5	4	3	2	3	0	0	88	89	7.1	7.1	3.6	3.6	61.5	61.9	M711	#Middlekoop
Wilson	1664	SX	167	160	18.3	19.6	13	3	3	4	0	0	90	91	7.0	7.1	3.6	3.6	61.8	61.7	1664	Wilson
Dairyland	ST1410	SX	170	165	18.3	19.3	18	3	4	4	0	0	91	93	7.2	7.3	3.7	3.7	61.4	61.3	ST1410	Dairyland
Renk	RK864	SX	169	167	18.3	19.6	18	4	2	3	0	0	93	94	6.9	7.1	3.5	3.5	61.9	61.7	RK864	Renk
NetSeeds	NET1093	SX		158	18.3			0		5		0		88		8.0		3.8		60.7	NET1093	NetSeeds
Hobart	4650	SX	169	165	18.4	19.9	12	4	3	4	0	0	89	90	7.1	7.4	3.6	3.6	61.8	61.6	4650	Hobart
Pfister	2680	SX	170	169	18.4	19.7	13	2	3	4	0	0	91	92	7.0	7.4	3.6	3.6	61.9	61.5	2680	Pfister
Producers	716	SX	170	167	18.5	19.6	17	2	4	3	0	0	92	93	7.0	7.2	3.6	3.6	61.7	61.4	716	Producers
Merschman	M5110	SX	169	165	18.5	19.8	12	2	3	4	0	0	88	89	7.1	7.3	3.6	3.5	61.5	61.5	M5110	Merschman
A+ Seeds	4112	SX	167	160	18.5	19.8	12	1	3	3	0	0	89	88	7.1	7.3	3.6	3.6	61.7	61.4	4112	A+ Seeds
Epley	EX2480	SX	167	165	18.5	19.0	13	0	4	5	0	0	93	93	7.7	7.9	3.6	3.7	61.2	61.0	EX2480	Epley
#Cornelius	C611A	SX	173	171	18.5	19.6	7	2	2	3	0	0	91	92	7.1	7.2	3.6	3.7	61.6	61.7	C611A	#Cornelius
Prairie Gold	PG1634	SX	167	167	18.5	20.2	14	2	3	4	0	0	92	92	6.7	7.0	3.5	3.5	62.0	61.8	PG1634	Prairie Gold
#Ottilie	2453	SX	171	166	18.7	19.7	8	0	2	3	0	0	90	91	7.2	7.3	3.5	3.6	61.6	61.7	2453	#Ottilie
Cornelius	C685	SX	169	161	18.7	19.7	14	2	4	5	0	0	91	92	7.1	7.3	3.6	3.7	61.7	61.5	C685	Cornelius
Trelay	9095	SX	168	165	18.7	19.8	14	2	3	4	0	0	92	92	7.1	7.2	3.6	3.6	61.6	61.7	9095	Trelay
Agripro	AP9565	SX	168	165	18.7	19.9	16	3	3	4	0	0	90	91	7.0	7.1	3.6	3.6	61.7	61.5	AP9565	Agripro
Hawkeye Hybrid	SX55	SX	173	170	18.7	20.0	10	2	2	3	0	0	94	94	7.2	7.3	3.6	3.5	61.5	61.7	SX55	Hawkeye Hybrid
PSA Genetics/Garst	7727	SX	172	167	18.7	20.1	14	3	3	5	0	0	90	91	7.2	7.3	3.6	3.7	61.5	61.5	7727	PSA Genetics/Garst
Hobart	4030	SX		163	18.8			2		7		0		92		7.2		3.7		61.4	4030	Hobart
#Cargill	6521Bt	SX		169	18.8			1		1		0		91		7.7		3.7		61.1	6521Bt	#Cargill
Ottilie	2467	SX	170	169	18.8	20.0	14	2	3	4	0	0	92	93	7.0	7.3	3.6	3.6	61.7	61.5	2467	Ottilie
FS	6598	SX		160	18.8			0		10		0		93		7.6		3.5		61.4	6598	FS
Desoy	9914A	SX		166	18.8			3		5		0		92		7.3		3.6		61.6	9914A	Desoy
Golden Harvest	H8890Bt	SX		170	19.1			3		4		0		93		7.4		3.5		61.5	H8890Bt	Golden Harvest
Desoy	9614ABt	SX	173	168	19.3	20.6	8	3	2	3	0	0	91	92	7.3	7.4	3.4	3.6	61.3	61.1	9614ABt	Desoy
M/W Genetics	G7711	SX	172	170	19.5	20.5	16	2	2	2	0	0	92	93	6.9	7.3	3.6	3.6	61.8	61.6	G7711	M/W Genetics
#Garst/Agripro	8550	SX	172	172	19.5	20.7	8	2	2	3	0	0	90	90	7.4	7.5	3.7	3.8	61.2	61.3	8550	#Garst/Agripro
Desoy	9910+Bt	SX		168	19.6			0		2		0		92		7.9		3.7		60.7	9910+Bt	Desoy
#Kruger	9410Bt	SX		166	19.6			3		1		0		89		7.2		3.6		61.7	9410Bt	#Kruger
Ottilie	5267Bt	SX		175	20.3			2		4		0		93		7.3		3.6		61.5	5267Bt	Ottilie
Average of All Entries			168.0	162.3	17.7	19.4	12.0	1.6	2.9	4.4	0.1	0.1	90.6	91.3	7.2	7.5	3.6	3.7	61.5	61.2	Average of All Entries	
Average of Check Hybrids			154.9	154.6	16.2	16.9	1.0	0.4	1.6	4.5	0.1	0.0	89.2	91.3	8.1	8.0	3.5	3.7	60.9	60.9	Average of Check Hybrids	

SX = Single Cross. MSX = Modified Single Cross. 3X = 3-Way Cross. 4X = 4-Way Cross. SXB = Blend of Single Crosses.
$ = Check Hybrid Entered by the Iowa Crop Improvement Association.
! = Short Check Hybrid Grown in Short Blocks.
= Hybrid Entered as a Short Hybrid and Grown in Short Blocks.

Table 1. Average Performance of Varieties Tested in District 3. 29,000 Planting Rate. LSD for 2000 Yield in Bushels Is 9, for 1999 Is 9, and for 1998 Is 12. 2000 Protein Pct LSD = 0.3. 2000 Oil Pct LSD = 0.1. 2000 Starch Pct LSD = 0.4.

			Yield Bu/A			Moisture Pct			Root Ldg Pct			Stalk Ldg Pct			Drop Ear Pct			Stand Pct			Protein Pct			Oil Pct			Starch Pct				
Brand	Variety	Cross	1998	1999	2000	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	2000	1999	1998	Variety	Brand
U.S. Seeds	USC1009	SX		136	151	13.4	13.3		0	0		6	3		0	0		88	87		8.6	7.5		3.4	3.9		61.0	60.2		USC1009	U.S. Seeds
DEKALB	DK507	SX			153	13.5			0			6			0			94			8.0			3.5			61.4			DK507	DEKALB
$DEKALB	DK512BtY	SX			143	13.6			0			11			0			92			8.5			3.8			61.2			DK512BtY	$DEKALB
Crows	217Bt	SX			151	13.6			1			17			0			93			7.8			3.7			61.6			217Bt	Crows
$Cargill	4111	SX			149	13.7			0			12			0			95			8.0			3.7			61.5			4111	$Cargill
Asgrow	RX452	SX			152	13.9			4			9			0			95			7.9			3.8			61.6			RX452	Asgrow
Middlekoop	M902	SX		140	157	14.0	13.7		5	1		8	2		0	0		92	89		8.3	7.4		3.5	4.0		61.5	60.2		M902	Middlekoop
Epley	EX1510Bt	SX		147	152	14.1	15.6		2	1		10	5		0	0		93	92		8.3	7.2		3.8	3.9		61.5	60.6		EX1510Bt	Epley
Asgrow	RX508	SX			149	14.1			1			7			1			94			8.3			3.6			61.4			RX508	Asgrow
Asgrow	RX637	SX			156	14.2			1			16			1			92			8.4			3.8			61.1			RX637	Asgrow
U.S. Seeds	USC1029Bt	SX		150	146	14.2	15.9		2	0		15	4		0	0		93	92		8.0	7.1		3.7	4.0		61.4	60.6		USC1029Bt	U.S. Seeds
PSA Genetics/Garst	4200Bt	SX			153	14.2			0			12			0			90			8.1			3.7			61.5			4200Bt	PSA Genetics/Garst
$NK Brand	N4242Bt	SX			151	14.3			2			4			0			92			7.9			3.6			62.1			N4242Bt	$NK Brand
DEKALB	DK537	SX	170	161	164	14.3	16.7	18.7	0	0	22	4	1	2	1	0	0	95	91	91	7.9	7.1	7.3	3.4	3.7	3.5	61.9	61.1	61.8	DK537	DEKALB
Rainbow	3020	SX		141	149	14.3	15.1		5	8		6	2		0	0		92	91		8.4	7.3		3.8	3.8		60.8	60.7		3020	Rainbow
$DEKALB	DK580BtY	SX		149	164	14.4	18.5		0	0		9	1		0	0		95	89		8.5	7.2		3.5	4.1		61.4	60.3		DK580BtY	$DEKALB
Hobart	4020	SX		160	146	14.5	16.7		2	1		12	1		0	0		89	89		8.2	7.2		3.4	3.8		61.7	60.6		4020	Hobart
Kussmaul	K208	SX			164	14.5			0			8			0			93			8.7			3.6			61.3			K208	Kussmaul
KSC/Challenger	9008	SX			162	14.5			1			9			0			95			8.2			3.5			61.8			9008	KSC/Challenger
U.S. Seeds	USC1001ND	SX			121	14.5			4			26			0			87			9.5			4.3			60.0			USC1001ND	U.S. Seeds
Kussmaul	K108+	SX			144	14.5			5			15			0			91			8.2			3.3			61.5			K108+	Kussmaul
Jung	2671	SX			163	14.6			1			9			0			94			8.0			3.6			61.5			2671	Jung
Epley	EX2422	SX		156	162	14.6	17.0		1	0		6	4		0	0		96	93		8.5	7.0		3.3	3.8		61.3	60.8		EX2422	Epley
U.S. Seeds	USC1059	SX			161	14.6			2			7			0			92			8.1			3.6			61.5			USC1059	U.S. Seeds
Renk	RK768	SX			162	14.6			2			9			0			92			8.2			3.7			61.3			RK768	Renk
Crows	351	SX			154	14.7			0			12			0			95			8.2			3.5			61.6			351	Crows
Ag Source	EX2001	SX			166	14.7			2			8			0			88			7.8			3.7			61.8			EX2001	Ag Source
KSC/Challenger	9105	SX			152	14.7			5			6			0			89			7.9			3.4			62.3			9105	KSC/Challenger
Epley	E2418	SX			161	14.8			0			5			0			92			7.8			3.9			61.9			E2418	Epley
Producers	641	SX			153	14.8			1			7			0			89			8.3			3.6			61.5			641	Producers
Fontanelle	4891	SX			165	14.8			1			8			0			95			7.7			3.8			61.9			4891	Fontanelle
Middlekoop	M1209	SX			142	14.8			3			10			0			91			8.6			3.3			61.4			M1209	Middlekoop
Hermann	41	SX			160	14.8			3			7			0			93			7.6			3.2			62.1			41	Hermann
KSC/Challenger	9104	SX			162	14.8			1			7			0			86			8.1			4.0			61.4			9104	KSC/Challenger
Renze	6231	SX			171	14.9			3			2			0			93			7.8			3.1			62.4			6231	Renze
Ag Source	5070	SX			163	14.9			0			7			0			91			8.0			3.9			61.5			5070	Ag Source
Hill Seed	EX106	SX			159	14.9			3			10			0			93			7.8			3.4			62.0			EX106	Hill Seed
Uthoff	U81	SX		159	158	14.9	17.1		1	0		8	3		0	0		90	93		7.7	7.1		4.0	4.1		61.8	60.7		U81	Uthoff
#Stine	9508Bt	SX			145	14.9			0			10			0			86			8.6			3.7			60.9			9508Bt	#Stine
$Golden Harvest	H8250	SX			160	14.9			2			9			0			93			7.9			3.9			61.6			H8250	$Golden Harvest
U.S. Seeds	USC1079RR	SX			155	14.9			0			8			0			91			8.5			3.9			60.9			USC1079RR	U.S. Seeds
Curry	4585	SX			166	14.9			1			8			0			93			7.7			3.8			62.1			4585	Curry
Prairie Gold	PG1530	SX			151	14.9			1			7			0			82			8.4			2.8			62.6			PG1530	Prairie Gold
$Pioneer	3563	SX			154	15.0			0			4			0			92			7.9			3.8			62.1			3563	$Pioneer
Hobart	4010	SX		157	159	15.0	16.8		0	0		6	2		0	0		90	91		8.4	7.2		3.6	3.7		61.3	60.8		4010	Hobart
Jung	2612	SX			162	15.1			1			6			0			91			7.9			3.9			61.5			2612	Jung
Epley	E1579	SX			150	15.1			5			8			1			87			7.7			3.1			62.5			E1579	Epley
Wilson	1364	SX			163	15.1			1			6			0			91			7.8			3.9			61.8			1364	Wilson
Asgrow	RX634	SX			162	15.2			1			7			0			88			8.2			3.3			61.6			RX634	Asgrow
$NK Brand	N59Q9	SX			170	15.2			3			7			0			94			8.0			3.5			61.9			N59Q9	$NK Brand
$Pioneer	35R57	SX			162	15.3			1			5			0			92			8.4			3.7			61.4			35R57	$Pioneer
High Cycle	HC350	SX			146	15.4			1			12			0			92			8.4			3.5			61.5			HC350	High Cycle
Curry	7590	SX			153	15.4			0			6			0			92			8.1			3.6			61.4			7590	Curry
DEKALB	DK567	SX		161	156	15.5	17.3		0	0		13	3		0	0		91	90		8.3	7.2		3.6	3.7		61.7	60.9		DK567	DEKALB
Hill Seed	EX104	SX		155	162	15.5	17.5		1	1		8	5		0	0		94	89		8.5	7.3		3.5	3.9		61.5	60.3		EX104	Hill Seed
$DEKALB	DK545BtY	SX		140	167	15.6	15.7		0	1		12	4		0	0		94	93		8.3	7.0		3.4	4.0		61.5	60.6		DK545BtY	$DEKALB
$Golden Harvest	H2398	SX			171	15.6			1			2			0			94			8.7			3.7			61.1			H2398	$Golden Harvest
!Golden Harvest	H2390	SX	140	157	168	15.6	16.0	19.0	0	0	3	3	1	1	0	0	0	90	90	88	9.0	7.6	7.7	3.6	3.5	3.4	61.2	60.6	60.8	H2390	!Golden Harvest
Great Lakes	5675	SX			163	15.7			2			8			0			91			8.0			3.3			61.6			5675	Great Lakes
DEKALB	DKC57-38	SX			167	15.7			1			4			0			91			8.3			3.6			61.5			DKC57-38	DEKALB
Garst/Agripro	8590IT	SX			156	15.7			1			8			0			92			7.9			3.9			61.3			8590IT	Garst/Agripro
FS	4481	SX			168	15.7			0			8			0			91			8.2			3.8			61.2			4481	FS
!Garst	8692IT	SX		145	147	15.8	18.0		1	0		3	3		0	0		91	89		8.9	7.8		3.7	3.8		61.3	60.3		8692IT	!Garst
DEKALB	DK525BtY	SX			161	15.8			0			7			0			89			8.3			3.8			61.5			DK525BtY	DEKALB
Middlekoop	M905Bt	SX		151	160	15.8	16.7		1	0		1	1		0	0		91	94		7.9	7.0		3.6	3.7		61.8	61.0		M905Bt	Middlekoop
Kruger	9109Bt	SX			171	15.8			1			3			0			87			7.8			3.9			61.5			9109Bt	Kruger
Cornelius	C491RR	SX			167	16.0			1			3			0			92			7.4			3.2			62.3			C491RR	Cornelius
Mycogen	2657	SX		163	172	16.0	18.2		0	3		2	1		0	0		89	88		7.7	7.2		3.8	4.2		61.5	60.3		2657	Mycogen
KSC/Challenger	9106Bt	SX			163	16.1			0			18			0			93			7.7			3.9			61.2			9106Bt	KSC/Challenger
Ottilie	4690	SX			161	16.1			0			12			0			92			8.6			3.6			61.2			4690	Ottilie
Golden Harvest	H8067Bt	SX		159	171	16.1	17.1		1	0		2	0		0	0		96	91		8.7	7.4		3.7	3.7		61.0	60.5		H8067Bt	Golden Harvest
Prairie Gold	PG529Bt	SX			154	16.2			3			1			0			86			8.3			3.8			61.6			PG529Bt	Prairie Gold
U.S. Seeds	USC1051ND	SX			151	16.2			4			29			0			91			9.1			4.4			59.8			USC1051ND	U.S. Seeds
Cargill	5320Bt	SX			172	16.2			1			17			0			94			8.2			3.8			61.5			5320Bt	Cargill
Ottilie	4911	SX		165	169	16.2	18.7		5	2		9	3		0	0		92	95		8.3	6.9		3.5	3.8		61.7	60.9		4911	Ottilie
Rainbow	X1050	SX			146	16.3			2			2			0			84			7.9			3.6			61.8			X1050	Rainbow
PSA Genetics/Garst	7507	SX			160	16.3			2			7			0			91			8.1			3.3			62.0			7507	PSA Genetics/Garst
NetSeeds	NET1105	SX		165	156	16.4	20.1		3	2		9	2		0	0		93	91		7.6	6.9		3.4	3.7		62.0	61.1		NET1105	NetSeeds
DEKALB	DK589BtY	SX		155	162	16.4	19.0		1	0		4	3		0	0		87	92		8.0	7.0		3.6	3.9		61.4	60.6		DK589BtY	DEKALB
Rainbow	3122	SX		161	159	16.5	18.2		2	1		8	4		0	0		91	92		8.1	7.0		3.5	3.8		61.4	60.8		3122	Rainbow
Golden Harvest	H8562	SX			171	16.5			1			8			0			95			8.5			3.7			60.9			H8562	Golden Harvest
Desoy	9614A	SX	173	175	166	16.6	19.6	22.7	5	0	38	2	2	0	0	0	0	90	93	88	7.8	6.9	6.6	3.4	3.8	3.4	61.7	61.0	62.4	9614A	Desoy
Renze	6386	SX			168	16.6			3			7			0			92			7.6			3.4			62.0			6386	Renze
U.S. Seeds	USC1069Bt	SX		152	167	16.6	18.6		5	0		9	3		0	0		92	92		7.9	7.0		3.8	3.6		61.5	61.1		USC1069Bt	U.S. Seeds
Wilson	1664	SX	181	155	165	16.6	20.0	22.2	3	2	33	6	2	1	0	0	0	92	90	89	7.6	6.5	6.8	3.4	3.8	3.4	62.0	61.3	61.9	1664	Wilson
Hawkeye Hybrid	SX33	SX		164	162	16.6	19.4		1	1		10	2		0	0		92	90		8.7	7.1		3.8	3.8		61.2	60.7		SX33	Hawkeye Hybrid
Wilson	1580	SX		164	160	16.7	19.1		1	0		4	2		0	0		91	91		8.4	7.2		4.1	3.9		61.0	60.7		1580	Wilson
#Golden Harvest	H7895	SX			179	16.7			6			4			0			91			9.3			3.5			60.8			H7895	#Golden Harvest
Rainbow	3100	SX	174	169	164	16.7	19.8	21.8	3	0	29	5	2	0	0	0	0	92	92	90	7.7	6.7	6.6	3.4	3.8	3.7	62.2	61.1	61.9	3100	Rainbow
Agrigold	A6428CL	SX			158	16.7			3			8			0			88			7.7			3.8			61.5			A6428CL	Agrigold
Wilson	1475PT	SX			161	16.7			2			4			0			89			8.0			4.0			61.2			1475PT	Wilson
Middlekoop	M1010Bt	SX			160	16.7			2			10			0			92			8.3			3.5			61.0			M1010Bt	Middlekoop
Mycogen	2652	SX		161	174	16.7	18.1		1	0		9	3		0	0		95	91		8.4	7.4		3.6	4.0		61.1	60.1		2652	Mycogen
NetSeeds	NET1117	SX			167	16.7			3			8			0			88			8.4			3.4			61.4			NET1117	NetSeeds
NC+	3820	SX			154	16.7			3			4			0			90			8.2			3.5			61.3			3820	NC+
Prairie Gold	PG1632	SX	165	161	163	16.7	19.1	21.9	1	2	22	8	2	0	0	0	0	92	92	85	8.3	7.1	7.1	3.5	3.8	3.3	61.6	60.8	61.3	PG1632	Prairie Gold
Producers	716	SX	175	167	167	16.8	20.2	22.0	2	3	47	3	2	6	0	0	0	93	93	90	7.6	6.9	6.7	3.4	3.8	3.5	61.8	61.0	62.2	716	Producers
Hill Seed	HSX1099	SX		161	161	16.8	19.0		1	0		10	2		0	0		88	92		8.6	7.4		3.8	3.9		60.9	60.3		HSX1099	Hill Seed
KSC/Challenger	9010Bt	SX		163	171	16.8	18.9		1	1		5	1		0	0		90	87		8.0	7.0		3.8	3.9		61.7	60.8		9010Bt	KSC/Challenger
U.S. Seeds	USC1099	SX		159	172	16.8	19.4		2	1		8	3		0	0		94	90		8.5	7.1		3.6	3.8		60.9	60.6		USC1099	U.S. Seeds
Renze	6371	SX			164	16.8			1			10			0			90			8.1			3.7			61.7			6371	Renze
Dairyland	ST1410	SX	179	169	161	16.8	19.8	21.3	3	2	49	7	2	4	0	0	0	92	93	87	7.8	6.9	6.9	3.5	3.9	3.6	61.7	60.9	61.6	ST1410	Dairyland
Pfister	2680	SX	173	169	169	16.8	20.0	22.2	3	0	36	6	3	1	0	0	0	93	90	89	7.9	6.8	6.4	3.5	3.7	3.6	61.7	61.2	62.7	2680	Pfister
DEKALB	DK611	SX			158	16.8			2			8			0			91			8.1			3.7			61.1			DK611	DEKALB
Hill Seed	EX105	SX		152	165	16.8	16.7		2	0		5	3		0	0		91	91		8.1	7.3		3.6	3.6		61.1	60.7		EX105	Hill Seed
Renk	RK864	SX	174	169	165	16.8	19.8	22.1	4	3	47	5	1	1	0	0	0	93	94	90	7.8	6.5	6.5	3.4	3.7	3.3	62.0	61.5	62.4	RK864	Renk
Hawkeye Hybrid	SX55	SX	180	167	173	16.8	20.6	22.5	3	2	25	5	1	0	0	0	0	94	93	95	7.9	6.7	6.9	3.3	3.7	3.7	62.2	61.2	61.3	SX55	Hawkeye Hybrid
Prairie Gold	PG1634	SX	168	172	162	16.8	20.2	23.5	4	0	38	7	2	0	0	0	0	92	93	91	7.4	6.6	6.3	3.3	3.7	3.5	62.2	61.4	62.4	PG1634	Prairie Gold
Hobart	4650	SX	175	164	166	16.8	19.9	22.9	3	5	29	7	2	0	0	0	0	92	88	87	7.9	6.9	6.4	3.5	3.7	3.6	62.0	61.1	62.1	4650	Hobart
Cornelius	C685	SX	187	163	158	16.9	20.5	21.9	3	1	37	7	3	2	0	0	0	92	92	89	7.8	6.7	6.6	3.6	3.8	3.5	61.9	61.2	62.2	C685	Cornelius
FS	6576	SX	184	164	167	16.9	19.3	21.2	1	0	37	5	3	1	0	0	0	94	91	88	7.9	7.1	6.8	3.6	3.7	3.3	61.6	60.8	62.1	6576	FS
PSA Genetics/Garst	7727	SX	180	166	168	16.9	20.6	22.9	5	0	38	7	2	0	0	0	0	91	90	90	7.8	6.8	6.9	3.5	3.8	3.6	61.9	61.1	61.5	7727	PSA Genetics/Garst
U.S. Seeds	USC1119ND	SX			121	16.9			2			40			0			88			9.5			4.3			59.7			USC1119ND	U.S. Seeds
Epley	EX2480	SX	172	165	166	16.9	20.1	20.1	1	0	38	7	3	2	0	0	0	93	94	91	8.5	7.3	7.2	3.7	3.7	3.4	61.4	60.6	61.6	EX2480	Epley
Trelay	9095	SX	174	170	160	16.9	20.4	22.0	3	1	39	7	1	1	0	0	0	91	94	90	7.7	6.8	6.9	3.4	3.7	3.7	62.2	61.2	61.3	9095	Trelay
Cornelius	C507	SX	175	162	169	16.9	17.7	19.4	1	2	38	8	3	2	0	0	0	91	91	92	8.4	7.4	7.3	3.6	3.9	3.3	61.3	60.4	61.7	C507	Cornelius
Kussmaul	K-HC	SX			171	16.9			1			5			0			91			7.9			3.5			61.9			K-HC	Kussmaul
Merschman	M5110	SX	177	164	165	16.9	20.0	22.4	3	0	34	6	1	2	0	0	0	90	87	87	7.6	6.9	6.7	3.4	3.6	3.7	61.9	61.2	61.4	M5110	Merschman
$Pioneer	34B23	SX			181	17.0			3			11			0			92			8.2			3.6			61.7			34B23	$Pioneer
Renk	RK837	SX			167	17.0			2			9			0			92			7.8			3.4			61.6			RK837	Renk
#KSC/Challenger	9911A	SX	178	166	167	17.0	18.6	22.4	6	0	33	6	1	0	0	0	0	91	90	88	8.0	7.0	7.4	3.5	3.5	3.6	61.6	61.1	60.6	9911A	#KSC/Challenger
Agrigold	A6427	SX			160	17.0			4			9			0			93			7.7			3.5			62.3			A6427	Agrigold
#Kruger	9810	SX	183	163	168	17.0	19.1	21.8	0	1	16	6	5	2	0	0	0	87	91	87	8.9	7.3	7.2	3.3	3.3	3.1	61.6	61.3	61.5	9810	#Kruger
FS	6598	SX		156	163	17.0	20.6		1	0		17	3		0	0		95	91		8.1	7.2		3.3	3.6		61.9	60.9		6598	FS
A+ Seeds	4112	SX	181	162	158	17.0	19.9	22.6	1	0	36	5	2	1	0	0	1	89	86	91	7.7	7.0	6.6	3.3	3.8	3.5	61.9	60.9	62.3	4112	A+ Seeds
Dairyland	ST1507	SX		158	164	17.0	18.8		1	3		10	3		0	0		92	91		8.4	7.0		3.6	3.7		61.5	60.9		ST1507	Dairyland
Hill Seed	EX108	SX			165	17.0			5			4			0			89			7.5			3.3			62.3			EX108	Hill Seed
Cornelius	C590YG	SX			169	17.1			1			7			0			92			8.5			3.7			60.8			C590YG	Cornelius
Agripro	AP9565	SX	174	164	167	17.1	20.3	22.4	4	1	43	5	3	1	0	0	0	93	90	88	7.6	6.6	6.8	3.5	3.8	3.4	61.8	61.2	62.1	AP9565	Agripro
FS	5308	SX	162	154	174	17.1	18.5	20.4	1	1	35	8	3	1	0	0	0	93	90	87	7.8	6.9	7.0	3.8	3.8	3.5	61.6	61.0	61.8	5308	FS
Ottilie	2467	SX	173	172	166	17.1	20.5	22.4	2	1	38	5	2	0	0	0	0	92	93	91	7.8	6.9	6.2	3.5	3.8	3.5	62.0	61.0	62.2	2467	Ottilie
Dairyland	ST1606	SX			176	17.1			6			4			0			92			7.5			3.4			62.5			ST1606	Dairyland
Kruger	9513	SX	182	165	160	17.1	18.8	21.3	1	3	35	9	2	2	0	0	0	90	93	89	8.0	6.9	6.6	3.4	3.7	3.4	61.8	61.0	61.9	9513	Kruger
Great Lakes	5816	SX	177	163	163	17.1	19.4	20.9	5	0	37	7	2	2	0	0	0	92	91	88	8.0	6.8	7.0	3.4	3.6	3.5	61.9	61.2	61.5	5816	Great Lakes
Ag Source	5490	SX			164	17.1			1			8			0			93			8.2			3.4			61.2			5490	Ag Source
NetSeeds	NET1093	SX		161	156	17.1	19.6		1	0		8	3		0	0		84	93		8.6	7.3		3.8	3.8		61.0	60.5		NET1093	NetSeeds
Great Lakes	5758	SX			170	17.1			1			10			0			94			8.1			3.5			61.3			5758	Great Lakes
Epley	EX3610Bt	SX			162	17.2			3			5			0			93			8.2			3.5			61.5			EX3610Bt	Epley
Epley	E2433	SX			164	17.2			1			3			0			89			8.3			3.5			61.3			E2433	Epley
PSA Genetics/Garst	7500	SX			166	17.2			1			10			0			92			8.5			3.7			61.1			7500	PSA Genetics/Garst
Prairie Gold	PG1586	SX	154	160	148	17.2	19.1	20.6	2	0	49	6	2	0	0	0	0	90	90	87	8.1	7.4	7.8	3.4	3.7	3.4	61.4	60.7	61.0	PG1586	Prairie Gold
Epley	E2470	SX			170	17.2			5			4			0			92			7.4			3.3			62.3			E2470	Epley
M/W Genetics	G7637Bt	SX			174	17.2			4			5			0			94			8.0			3.6			61.5			G7637Bt	M/W Genetics
#Fontanelle	4741	SX			176	17.3			2			3			0			89			8.4			3.6			61.6			4741	#Fontanelle
DEKALB	DK579	SX			165	17.3			1			3			0			92			8.2			3.7			61.7			DK579	DEKALB
#Curry	2151	SX			173	17.3			2			6			0			88			7.6			3.5			62.3			2151	#Curry
Hobart	4040Bt	SX			172	17.3			1			5			0			88			8.1			3.8			61.6			4040Bt	Hobart
Hobart	4840	SX	159	151	161	17.3	16.7	21.1	0	0	15	7	2	1	0	0	0	90	90	87	7.7	6.8	7.3	3.5	3.7	3.4	61.8	61.2	61.8	4840	Hobart
Golden Harvest	H8890Bt	SX		175	166	17.3	20.9		5	0		7	2		0	0		94	92		7.9	6.9		3.5	3.5		61.8	61.2		H8890Bt	Golden Harvest
Pfister	2656	SX			187	17.3			6			9			0			93			7.9			3.8			61.6			2656	Pfister
Kruger	9108	SX			173	17.3			6			6			0			93			7.3			3.2			62.6			9108	Kruger
Agrigold	A6391	SX			171	17.4			5			2			0			90			7.5			3.4			62.1			A6391	Agrigold
Hobart	4030	SX		162	165	17.4	20.2		3	0		10	3		0	0		91	92		8.0	6.5		3.5	3.9		61.6	61.2		4030	Hobart
Trelay	7095	SX			162	17.4			2			6			0			93			8.3			3.6			61.4			7095	Trelay
Renze	6320	SX		157	158	17.4	18.6		2	1		10	5		0	0		92	92		8.4	7.4		3.4	3.7		61.5	60.6		6320	Renze
Mark	MRK96Bt111	SX			171	17.4			3			5			0			94			8.0			3.6			61.5			MRK96Bt111	Mark
Desoy	9914A	SX		167	164	17.4	20.2		3	2		8	3		0	1		92	92		7.9	6.7		3.4	3.7		62.1	61.2		9914A	Desoy
#Middlekoop	M1109	SX			167	17.4			1			2			0			90			8.3			3.6			61.5			M1109	#Middlekoop
Trelay	7001	SX			164	17.5			5			7			0			92			7.4			3.3			62.5			7001	Trelay
M/W Genetics	G7622Bt	SX			167	17.5			1			10			0			95			8.4			3.5			61.2			G7622Bt	M/W Genetics
Ag Source	EX2009	SX			161	17.5			4			16			0			89			7.8			3.6			61.8			EX2009	Ag Source
Kruger	9109	SX			171	17.6			3			6			0			93			7.5			3.4			62.4			9109	Kruger
Renze	8349Bt	SX			166	17.6			3			3			0			93			8.1			3.5			61.5			8349Bt	Renze
Asgrow	RX601YG	SX		164	181	17.6	18.4		1	0		5	3		0	0		93	88		7.7	6.7		3.7	3.6		61.7	61.3		RX601YG	Asgrow
#Ottilie	2453	SX	181	161	172	17.6	19.7	21.7	0	0	22	5	1	0	0	0	0	94	89	88	7.8	6.8	6.9	3.5	3.6	3.4	62.2	61.2	61.4	2453	#Ottilie
#Middlekoop	M711	SX	173	152	172	17.7	18.9	21.8	3	2	6	5	1	0	0	0	0	91	88	84	7.7	6.6	7.2	3.6	3.6	3.5	62.5	61.3	60.6	M711	#Middlekoop
PSA Genetics/Garst	EX4498	SX			175	17.7			9			11			0			92			8.0			3.9			61.4			EX4498	PSA Genetics/Garst
#NC+	3448	SX			186	17.7			5			6			0			92			7.9			3.7			62.1			3448	#NC+
Mark	MRK00110	SX			168	17.7			2			5			0			89			8.0			3.7			61.5			MRK00110	Mark
Agripro	AP9559Bt	SX			164	17.7			4			6			0			91			8.0			3.5			61.9			AP9559Bt	Agripro
#Pfister	2295	SX			176	17.7			1			3			0			88			7.8			3.5			62.1			2295	#Pfister
Producers	714Bt	SX			171	17.8			4			3			0			93			8.0			3.4			61.3			714Bt	Producers
Dairyland	ST1414	SX			182	17.8			0			6			0			91			7.7			3.7			61.8			ST1414	Dairyland
High Cycle	HC7638Bt	SX			163	17.8			4			2			0			90			8.6			3.5			61.2			HC7638Bt	High Cycle
Hill Seed	EX111	SX		141	171	17.8	18.1		7	0		9	1		0	0		93	86		7.5	7.5		3.7	3.8		62.0	60.3		EX111	Hill Seed
Hermann	91	SX			177	17.8			7			6			0			94			7.5			3.3			62.3			91	Hermann
KSC/Challenger	9115A	SX			167	17.8			1			10			0			94			7.9			3.6			61.8			9115A	KSC/Challenger
#Cargill	6521Bt	SX		166	172	17.8	19.8		2	0		2	0		0	0		92	89		8.2	7.2		3.7	3.8		61.5	60.7		6521Bt	#Cargill
M/W Genetics	G7706	SX			172	17.9			4			7			0			90			7.4			3.5			61.9			G7706	M/W Genetics
Wilson	E0618	SX			166	17.9			1			8			0			93			8.1			3.9			61.2			E0618	Wilson
Desoy	9914	SX			169	17.9			6			11			0			94			7.6			3.6			61.4			9914	Desoy
LG Seeds	LG2585	SX			176	17.9			4			10			0			94			7.9			3.7			61.6			LG2585	LG Seeds
Renk	RK806	SX			179	17.9			8			5			0			93			7.5			3.3			61.9			RK806	Renk
Agripro	AP9476Bt	SX			163	18.0			2			6			0			87			8.3			3.5			61.3			AP9476Bt	Agripro
#Cornelius	C611A	SX	176	165	177	18.0	19.1	21.7	1	4	17	4	1	1	0	0	0	92	92	89	7.7	6.7	6.9	3.7	3.7	3.4	62.1	61.3	61.4	C611A	#Cornelius
Ottilie	5267Bt	SX		176	175	18.0	22.7		4	1		6	1		0	0		94	92		7.6	6.9		3.4	3.7		62.0	61.1		5267Bt	Ottilie
Mark	MRK99Bt109	SX			172	18.0			3			7			0			92			8.5			3.7			61.1			MRK99Bt109	Mark
Desoy	9614ABt	SX	184	172	164	18.0	20.5	23.3	5	0	17	5	2	0	0	0	0	91	94	88	7.9	6.9	7.1	3.4	3.8	3.1	61.2	60.9	61.9	9614ABt	Desoy
Dairyland	ST1412Bt	SX			176	18.0			4			7			0			95			7.4			3.4			62.0			ST1412Bt	Dairyland
Middlekoop	M1011Bt	SX			166	18.0			2			6			0			92			8.2			3.5			61.1			M1011Bt	Middlekoop
Renze	8261Bt	SX			164	18.0			4			9			0			89			8.3			3.6			61.4			8261Bt	Renze
Renk	RK896	SX			170	18.0			2			10			0			94			7.6			3.4			62.1			RK896	Renk
Renze	6351	SX			172	18.1			5			7			0			91			7.9			3.9			61.2			6351	Renze
Mark	MRK97Bt112	SX			166	18.1			4			5			0			92			7.6			3.4			62.3			MRK97Bt112	Mark
Renk	RK874	SX			164	18.1			8			7			0			92			7.6			3.5			61.9			RK874	Renk
Kruger	9115	SX			168	18.1			1			7			0			91			7.5			3.3			62.1			9115	Kruger
AgVenture	696	SX			169	18.1			9			7			0			91			7.5			3.3			62.4			696	AgVenture
A+ Seeds	5107Bt	SX			174	18.1			3			2			0			88			8.2			3.5			61.1			5107Bt	A+ Seeds
Rainbow	X1129YG	SX			178	18.1			6			5			0			90			8.0			3.7			61.5			X1129YG	Rainbow
Ag Source	5493Bt	SX			169	18.2			5			9			0			90			8.3			3.7			61.0			5493Bt	Ag Source
Ottilie	4777Bt	SX			166	18.2			2			7			0			93			8.3			3.6			61.2			4777Bt	Ottilie
Hill Seed	EX110	SX			178	18.2			1			8			0			92			7.9			3.7			61.4			EX110	Hill Seed
Renze	8381Bt	SX			170	18.2			5			5			0			93			7.8			3.6			61.8			8381Bt	Renze
Fontanelle	5051	SX			167	18.2			15			5			0			93			7.5			3.1			62.4			5051	Fontanelle
Desoy	9013Bt	SX			165	18.2			5			9			0			93			7.8			3.5			61.8			9013Bt	Desoy
Crows	438Bt	SX			172	18.3			17			12			0			93			7.7			3.7			62.0			438Bt	Crows
Desoy	9910+Bt	SX		163	173	18.3	20.8		0	0		3	0		0	0		93	91		8.3	7.4		3.5	3.9		61.2	60.3		9910+Bt	Desoy
Merschman	M01110	SX			173	18.3			8			8			0			94			7.4			3.4			62.0			M01110	Merschman
M/W Genetics	G7711	SX	175	171	170	18.4	20.6	22.4	3	1	43	3	2	1	0	0	0	91	95	91	7.9	6.6	6.3	3.6	3.7	3.5	61.9	61.4	62.1	G7711	M/W Genetics
Mark	MRK02110	SX			169	18.4			4			7			0			92			7.3			3.5			62.2			MRK02110	Mark
Desoy	9111	SX			177	18.4			1			7			0			92			8.0			3.7			61.2			9111	Desoy
Epley	E3223	SX			186	18.6			4			7			0			94			7.6			3.6			61.6			E3223	Epley
Desoy	9114	SX			172	18.6			4			12			0			94			7.3			3.6			61.9			9114	Desoy
#Cornelius	C578YG	SX			173	18.7			3			0			0			90			8.0			3.5			62.0			C578YG	#Cornelius
#Kruger	9410Bt	SX		158	174	18.7	20.6		5	0		8	0		0	0		90	89		7.6	6.8		3.7	3.6		62.0	61.3		9410Bt	#Kruger
Dairyland	ST1609	SX			180	18.7			3			8			0			91			8.2			3.8			61.1			ST1609	Dairyland
Hawkeye Hybrid	SX49	SX			182	18.8			5			4			0			94			7.7			3.8			61.6			SX49	Hawkeye Hybrid
KSC/Challenger	EX112Bt	SX			169	18.8			3			10			0			91			7.3			3.6			62.1			EX112Bt	KSC/Challenger
!Garst	8539IT	SX			174	18.8			3			5			0			89			8.7			4.0			60.8			8539IT	!Garst
#Garst/Agripro	8550	SX	171	169	176	18.9	20.2	23.1	3	2	19	4	1	1	0	0	0	89	91	90	8.0	7.0	7.2	3.8	3.7	3.6	61.8	60.9	61.0	8550	#Garst/Agripro
Kruger	9014Bt	SX			182	19.1			1			8			0			93			8.0			3.9			61.4			9014Bt	Kruger
Ottilie	5333	SX			173	19.2			6			8			0			92			7.2			3.7			61.9			5333	Ottilie
Kruger	9113	SX			178	19.3			8			8			0			92			7.7			3.1			62.4			9113	Kruger
#Desoy	9011	SX			174	19.5			2			5			0			87			8.0			3.7			61.8			9011	#Desoy
Stine	9614Bt	SX			171	19.9			3			14			0			89			7.8			3.4			62.2			9614Bt	Stine
KSC/Challenger	9013+Bt	SX			189	20.0			1			2			0			88			7.9			4.0			61.2			9013+Bt	KSC/Challenger
Ottilie	4999	SX			177	20.2			2			11			0			91			7.5			3.5			62.3			4999	Ottilie
Average of All Entries			173.7	160.4	164.9	16.7	18.8	21.7	2.5	0.9	31.7	7.4	2.2	1.1	0.1	0.1	0.0	91.4	91.0	88.9	8.0	7.0	6.9	3.6	3.8	3.5	61.6	60.9	61.7	Average of All Entries	
Average of Check Hybrids			139.5	147.7	161.5	15.3	17.0	19.0	1.1	0.4	2.9	6.8	2.3	0.8	0.1	0.0	0.0	92.5	90.3	88.0	8.3	7.4	7.7	3.7	3.8	3.4	61.5	60.5	60.8	Average of Check Hybrids	

SX = Single Cross. MSX = Modified Single Cross. 3X = 3-Way Cross. 4X = 4-Way Cross. SXB = Blend of Single Crosses.
$ = Check Hybrid Entered by the Iowa Crop Improvement Association.
! = Short Check Hybrid Grown in Short Blocks.
= Hybrid Entered as a Short Hybrid and Grown in Short Blocks.

District 3

Designations Identifying Brands in the Test

A+ Seeds .... A+ Seeds, Elkader, IA 52043, 319-245-1125
Ag Source .... Ag Source Seeds, Inc., Boone, IA 50036, 515-432-8100
Agrigold .... Agrigold Hybrids, Inc., St. Francisville, IL 62460, 618-943-5776
Agripro .... Garst Seed Co., Slater, IA 50244, 515-233-4053 Ext 348
AgVenture .... AgVenture of Iowa, Inc., Elgin, IA 52141-0237, 319-426-5585
Asgrow .... Monsanto, DeKalb, IL 60115, 815-758-9323
*Cargill .... Cargill Hybrid Seeds, West Des Moines, IA 50266, 515-222-9541
Cornelius .... Cornelius Seed, Bellevue, IA 52031, 319-672-3463
Crows .... Crow's Hybrid Corn Co., Milford, IL 60953, 815-889-4151
Curry .... Curry Seed Co., Elk Point, SD 57025, 605-356-3366
Dairyland .... Dairyland Seed Co. Inc., West Bend, WI 53095, 262-338-0163
*DEKALB .... Monsanto, DeKalb, IL 60115, 815-758-9323
Desoy .... Dennis Ewing, Ames, IA 50010, 800-368-9528
Epley .... Epley Bros. Hybrids, Inc., Shell Rock, IA 50670, 319-885-6293
Fontanelle .... Fontanelle Hybrids, Fontanelle, NE 68044-2505, 402-721-1410
FS .... Growmark, Inc., Bloomington, IL 61702, 309-557-6398
*Garst .... Garst Seed Company, Grimes, IA 50111, 515-986-3919
Garst/Agripro .... Garst Seed Co., Slater, IA 50244, 800-831-6630
*Golden Harvest .... Golden Seed Co., Cordova, IL 61242, 800-421-1196
Golden Harvest .... The J. C. Robinson Seed Co., Waterloo, NE 68069, 800-228-9906
Great Lakes .... Great Lakes Hybrids, Ovid, MI 48866, 800-257-7333
Hawkeye Hybrid .... Hawkeye Hybrids, Inc., Pella, IA 50219, 641-628-3827
Hermann .... Hermann's Hybrids, Manchester, IA 52057, 319-927-2191
High Cycle .... Trelay Seeds, Livingston, WI 53554, 608-943-6363
Hill Seed .... Hill Seed Co., Ellsworth, IA 50075, 515-836-2141
Hobart .... Hobart Bros. Seed Co., Lake City, IA 51449, 712-464-7651
Jung .... Jung Seed Genetics, Randolph, WI 53956, 920-326-5891
Kruger .... Kruger Seed Company, Dike, IA 50624, 800-772-2721
KSC/Challenger .... KSC/Challenger Seed, Dike, IA 50624, 319-989-2414
Kussmaul .... Kussmaul Seed Co., Mount Hope, WI 53816, 608-988-4568
LG Seeds .... LG Seeds, Elmwood, IL 61529, 309-742-2211
Mark .... Mark Seed Co., Perry, IA 50220, 515-465-2122
Merschman .... Merschman Seeds, West Point, IA 52656, 319-837-6111
Middlekoop .... Middlekoop Seed Corn, Inc., Packwood, IA 52580, 319-695-3266
M/W Genetics .... Midwest Seed Genetics, Carroll, IA 51401, 815-889-4151
Mycogen .... Mycogen Seeds, Indianapolis, IN 46268, 317-337-7557
NC+ .... NC+ Hybrids, Lincoln, NE 68504, 402-467-2517
NetSeeds .... NetSeeds, Inc., Urbandale, IA 50322, 515-331-0939
*NK Brand .... Novartis Seeds, Inc., Ames, IA 50010, 515-239-3505
Ottilie .... Ottilie RO Seed, Marshalltown, IA 50158, 641-753-5561
Pfister .... Pfister Hybrid Corn Co., El Paso, IL 61738, 309-527-6000
*Pioneer .... Pioneer Hi-Bred Int., Inc., Johnston, IA 50131-0454, 800-247-6803
Prairie Gold .... Ramy International, Ltd., Mankato, MN 56001, 507-387-4091
Producers .... Producers Hybrids, Battle Creek, NE 68715, 402-675-2975
PSA Genetics/Garst .... PSA Genetics/Garst, Alta, IA 51002, 712-296-3663
Rainbow .... Rainbow Seeds, Inc., Oskaloosa, IA 52577, 800-373-9401
Renk .... Renk Seed Co., Sun Prairie, WI 53590, 608-837-7351
Renze .... Renze Hybrids, Inc., Carroll, IA 51401, 712-669-3301
Stine .... Stine Seed Company, Adel, IA 50003, 800-362-2510
Trelay .... Trelay Seeds, Livingston, WI 53554, 608-943-6363
U.S. Seeds .... United Suppliers, Inc., Eldora, IA 50627-0538, 641-858-2341
Uthoff .... Uthoff Hybrids, Cedar Rapids, IA 52404, 319-848-4242
Wilson .... Wilson Genetics LLC, Harlan, IA 51537, 712-755-3841

*Companies with one or more check hybrids entered by the Iowa Crop Improvement Association.

The *2000 Iowa Crop Performance Test—Corn* Computer Diskette Order Form

Iowa Crop Performance Test—Corn results are published each year to help farmers select corn hybrids. Since 1987 a computer version has been available that includes the information in the written reports and a program to calculate an economic return value for each hybrid based on farmer supplied expected corn price, final moisture, and drying and shrink costs. These inputs can easily be changed and the computer will calculate new economic return values for all hybrids. These values provide information on whether full season hybrids produce enough extra yield to compensate for drying costs. The computer program also can sort the hybrids by yield, moisture, adjusted economic value, root lodging, stalk lodging, dropped ears, protein, oil, starch, or brand.

For more information, call Extension Software Service at 515-294-8658. Or, if you want to order the program, please complete, cut out, and return the order form in this report.

It is important to select varieties having stable performance over a range of environmental conditions. High yields for two or more consecutive years, Table 2, indicate stable performance. Supplemental yield and agronomic information about specific varieties may be obtained from seed corn dealers, crop consultants, and from neighbors who have grown these varieties.

The protein, oil, and starch percentage data (Tables 1 and 2) are quality traits important to different end-users of corn. For feed, protein is of primary interest; for wet-mill processing (ethanol and sweeteners), oil and starch content are important. Several firms have begun testing these characteristics on a routine basis. There are now more than 50 Iowa grain elevators with this testing capability.

Whole-grain near-infrared equipment measures composition of unground corn kernels in 1 to 1.5 minutes per sample. The equipment measures moisture simultaneously with composition. Using these instruments, country elevators can test and segregate grain as it is received. Obviously, all compositional factors cannot be high in the same hybrid. The grain market is expanding the production and marketing of certain hybrids for specific uses. This is an important change from the generic commodity approach widely used now.

The economic impact of compositional factors can be significant. Corn protein trades off with other protein sources in many feed rations. At $200 per ton for 44 percent protein soybean meal, the value of a 1 percent increase (e.g., from 8 percent to 9 percent) in corn protein is about 12 cents per bushel of corn. Likewise, an additional percent of oil yields about 10 to 14 cents per bushel in increased oil output in a wet processing plant or when substituted for white grease in feed rations. The additional ethanol or sweetener from an extra percent of starch provides 8 to 10 cents per bushel more revenue. Producers feeding livestock are in the best position to capture immediate benefits from these composition data. Country elevators with feed mills also have the ability to capitalize on increased protein in corn. The Iowa Corn Growers Association has prepared a publication to aid growers in using the nutrient data in the *Iowa Crop Performance Test—Corn* reports: *Nutrient Content and Feeding Value of Iowa Corn,* Iowa Corn Growers Association, Des Moines, Iowa 50265.

Hybrids with similar yields and agronomic characteristics may not be identical in corn composition. Therefore, feed costs can be reduced by selecting higher protein hybrids from a group with similar yield potential. Weather and soil conditions affect composition, but the relative ranking of hybrids does not change greatly. A higher protein hybrid will be higher than average regardless of environmental conditions that raise or lower the averages. The protein percentages reported are measures of crude protein and may not give an accurate indication of feed value if feed rations are balanced on individual amino acids rather than crude protein content.

2000 Field Data

The District 3 test was planted on farms operated by Mick Reigelsberger near Rolfe in Pocahontas County, Richard Bertram near Holland in Grundy County, and Dave Broghammer near Manchester in Delaware County. Field data are presented in Table A.

At planting time, subsoil moisture for the district ranged from dry in the west to adequate in the central and east. Rainfall for the district was below normal in April and well below normal in September. For the rest of the growing season, rainfall was variable for the district. In May, the Pocahontas County location received below normal rainfall while the other two locations received above normal rainfall. In June, the Pocahontas County location received near normal rainfall while the other two locations received well above normal rainfall. In July, the Delaware County location received near normal rainfall while the other two locations received well above normal rainfall. In August, the Pocahontas County location received well above normal rainfall while the other two locations received below normal rainfall. Temperatures for the district were above normal in April and August, way above normal in May and September, below normal in July, and well below normal in June. The average district yield was 15 bushels per acre above the mean of the five preceding years' averages. Average location yields are listed in Table A.

Table A. Field Data

	Reigelsberger Farm Nicollet loam			Bertram Farm* Tama silty clay loam			Broghammer Farm Kenyon loam		
Fertilizer applied, lb.	N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O
Plowdown	39	100	120	19	91	78	—	—	60
Preplant	130	—	—	140	—	—	200	—	—
Starter	—	—	—	—	—	—	6	20	—
Total	169	100	120	159	91	78	206	20	60
1999 crop	Soybeans			Soybeans			Soybeans		
Row width	30 inches			30 inches			30 inches		
Planting date	April 18			April 27			April 28 & 29		
Harvest date	Oct. 2 & 3			Sept. 23, 25 & 26			Oct. 4 & 5		
Average yield	187 bu/a			153 bu/a			155 bu/a		

*Field sampled for protein, oil, and starch percentage data.

Other Reports

Separate reports are available for each district shown in Figure 1. A limited supply of these publications is available at your county extension office or from Extension Distribution Center, 119 Printing and Publications Building, Iowa State University, Ames, Iowa 50011. Also, an IBM-compatible diskette containing these data along with a hybrid selection program is available from Extension Software Services, 110 EES Bldg., Haber Road, Iowa State University, Ames, Iowa 50011-3070. Along with all of the information as it appears in the written reports, the computer diskettes include computer programs that allow farmers to insert their own drying and shrink costs, expected price of corn, and final moisture percentage after drying. Using these specific criteria, the program calculates an adjusted economic value for each hybrid in the test. Farmers can then determine which hybrids might best fit their own production practices and provide the most profit. The computer program also can sort the hybrids by yield, moisture, adjusted value, root lodging, stalk lodging, dropped ears, protein, oil, starch, or brand and then print the data as sorted. An IBM personal or compatible computer supporting MS-DOS 2.0 or higher, with at least 512K memory, is required. The cost of this diskette is $25. All seven districts can be purchased for $150. Order forms, PM 660 OF 00, are available from county extension offices and included in the printed reports.

The *2000 Iowa Crop Performance Test—Corn:*
PM 660 1 00 District 1
PM 660 2 00 District 2
PM 660 3 00 District 3
PM 660 4 00 District 4
PM 660 5 00 District 5
PM 660 6 00 District 6
PM 660 7 00 District 7

Order Form: *Iowa Crop Performance Test—Corn* Hybrid Selection Program

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